

# Snowcoach MPV

## Assembly Instructions & Operations Handbook

### Congratulations!

You are the owner of the most advanced passenger unit available today. The superior suspension and cushioned hitch provides a high level of safety and comfort. Your Snowcoach MPV is partially knocked-down for easy shipment, so some assembly is required. Follow the simple instructions inside.

Important: Save these instructions, DO NOT DISCARD.



## Tools required to assemble skies and suspension

- |                               |                             |
|-------------------------------|-----------------------------|
| 1 – ½” wrench or socket       | 1 – 15/16” wrench or socket |
| 2 – 9/16” wrenches or sockets | 1 – 1 1/8” wrench or socket |
| 2 – ¾” wrenches or sockets    | 1 – Rubber mallet/hammer    |

## Bill of materials

- |   |  |
|---|--|
| 4 – Ø3/8” x 1 ¼” Fine Thread Gr. 8 Bolts  | 4 – Ø¾” x 3/8” Long Steel Bushings       |
| 4 – Ø3/8” x 1 ¾” Fine Thread Gr. 8 Bolts  | 4 - Ø¾” x 1 ½” Long Steel Bushings       |
| 14 – Ø3/8” x 2 ½” Fine Thread Gr. 8 Bolts | 1 – Swivel Front Suspension Frame        |
| 4 – Ø3/8” x 4” Coarse Thread Bolts        | 2 – Ø11” x 3/32” Nylon Wear Circles      |
| 4 – Ø½” x 5 ½” Coarse Thread Bolts        | 1 - Ø11” x ¼” Rubber Wear Circle Spacer  |
| 40 – Ø3/8” washers                        | 1 – Fixed Rear Suspension Frame          |
| 12 – Ø½” washers – Heavy Gauge            | 2 – Right Hand A - Frame Arms            |
| 8 – Ø½” washers – Light Gauge             | 2 – Left Hand A - Frame Arms             |
| 2 – Ø¾” washers – Heavy Gauge             | 4 – Skies with wear-bars and 12 Ø½” nuts |
| 22 – Ø3/8” Fine Thread Nylon Lock Nuts    | 4 – Shocks                               |
| 4 – Ø3/8” Coarse Thread Nylon Lock Nuts   | 1 – Hitch                                |
| 4 – Ø½” Coarse Thread Nylon Lock Nuts     | 1 – Limited Rotation Draw Pin Assembly   |
| 1 – Ø1/8” x 2” Cotter Pin                 | 1 – Wiring Harness (Rescue Only!)        |

## Snowcoach MPV with Ski & Suspension

The Snowcoach MPV's main frame is shipped pre-mounted to the body.

Step 1: Pre-assemble the front and rear suspension assemblies as follows.

Step 2: Position one right and one left A – Frame assembly between the eight A – Frame brackets on the rear fixed suspension assembly as shown below.



Note: A rubber mallet or hammer may be required to fit the A – Frames between the brackets.

Step 3: Secure the right and left A – Frames to the rear fixed suspension assembly using four  $\text{\O}3/8$ " x 2 1/2" Fine Thread Gr. 8 Bolts and four  $\text{\O}3/8$ " Fine Thread Nylon Lock Nuts. (DO NOT use washers!) Use two 9/16" wrenches to tighten. (DO NOT over-tighten nuts!)



Step 4: Position the bottom of one shock between the mounting plates on the bottom of the right A – Frame. Secure the shock to the A – Frame using one  $\text{\O}3/8$ " x 2 1/2" Fine Thread Gr. 8 Bolt, two  $\text{\O}3/8$ " washers, and one  $\text{\O}3/8$ " Fine Thread Nylon Lock Nut. Use two 9/16" wrenches to tighten.



Step 5: Position the top of the shock beside the  $\text{\O}1\ 1/4$ " O.D. steel bushing located on the rear fixed suspension assembly. Secure the top of the shock to the  $\text{\O}1\ 1/4$ " steel bushing using one  $\text{\O}3/8$ " x 4" Coarse Thread Bolt, three  $\text{\O}3/8$ " washers, one  $\text{\O}3/4$ " x 1 1/2" steel bushing, and one  $\text{\O}3/8$ " Coarse Thread Nylon Lock Nut. Use two 9/16" wrenches to tighten.



Note: Place one of the washers between the shock and the  $\text{\O}1\ 1/4$ " bushing.

Step 6: Repeat Steps 4 and 5 for the left A – Frame.

Step 7: Repeat Steps 2 through 5 for the front swivel suspension assembly.

Step 8: Position the steel wear bar onto the steel ski. Secure using three  $\varnothing 5/16$ " nuts. Use one  $\varnothing 1/2$ " wrench to tighten.



Step 9: Repeat step 8 for the three remaining skies.

Step 10: Position one steel ski upside down on one of the A – Frames. Secure the ski to the A – Frame using one  $\varnothing 1/2$ " x 5 1/2" Coarse Thread Bolt, two  $\varnothing 1/2$ " heavy washers, two  $\varnothing 1/2$ " light washers, and one  $\varnothing 1/2$ " Coarse Thread Nylon Lock Nut. Use two  $3/4$ " wrenches to tighten.



Step 11: Repeat step 10 for the three remaining skies. The front and rear suspension assemblies are now ready to be secured to the main frame.

Step 12: Gently tip the Snowcoach MPV onto its right side as shown below. (The side passenger door should be facing upwards.)



Note: Brace the Snowcoach MPV from tipping by placing blocks under the body as shown above.

Step 13: Position the rear fixed assembly against the main frame as shown below. Secure the assemblies using four  $\text{\O}3/8$ " x 1  $\frac{1}{4}$ " Fine Thread Gr. 8 Bolts, eight  $\text{\O}3/8$ " washers, and four  $\text{\O}3/8$ " Fine Thread Nylon Lock Nuts. Use two  $9/16$ " wrenches to tighten.



Step 14: Place one  $\text{\O}11$ " x  $\frac{3}{32}$ " Nylon Wear Circles over the  $\text{\O}3/4$ " welded bolt at the front of the main frame.

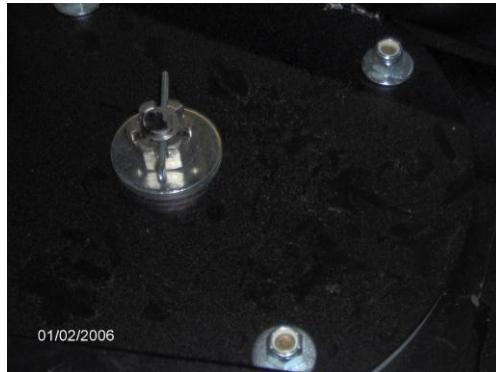
Step 15: Place the  $\text{\O}11$ " x  $\frac{1}{4}$ " Rubber Wear Circle Spacer over the  $\text{\O}11$ " x  $\frac{3}{32}$ " Nylon Wear Circle.

Step 16: Place the second  $\text{\O}11$ " x  $\frac{3}{32}$ " Nylon Wear Circle over the  $\text{\O}11$ " x  $\frac{1}{4}$ " Rubber Wear Circle Spacer. Line up the four bolt holes on all three pieces.

Step 17: Position the front swivel suspension assembly on the main frame as shown below.

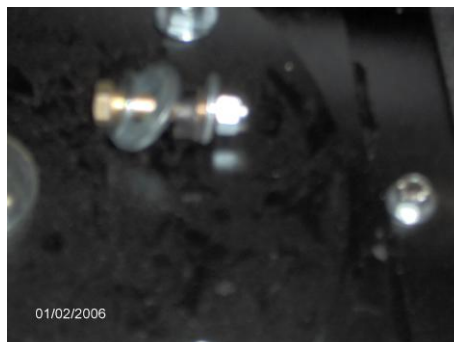


Step 18: Secure the assemblies using two  $\text{\O}3/4$ " washers, one castle nut and one  $\text{\O}1/8$ " x 2" cotter pin. Use a 1 1/8" wrench to tighten.



Note: DO NOT over-tighten castle nut as this will inhibit swivel assembly.

Step 19: Secure the turning radius of the swivel suspension assembly to the main frame using four  $\text{\O}3/8$ " x 1 3/4" Fine Thread Gr. 8 Bolts, eight  $\text{\O}3/8$ " washers, four  $\text{\O}1/2$ " washers, four  $\text{\O}3/4$ " x 3/8" steel bushings, and four  $\text{\O}3/8$ " Fine Thread Nylon Lock Nuts. Use two 9/16" wrenches to tighten.

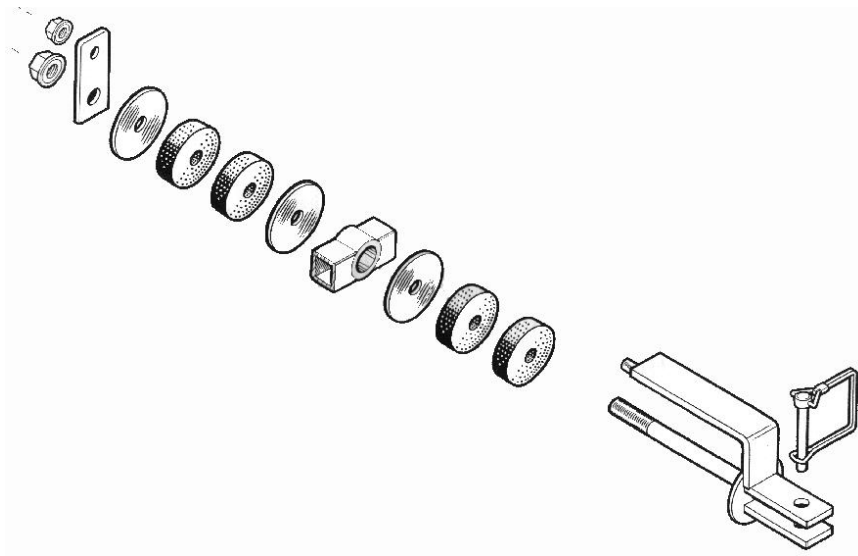


Step 20: Ensure all bolts are tight and flip unit up right as shown below.



Step 21: Position hitch between the two brackets on the front swivel suspension assembly. Secure hitch to swivel assembly using two  $\text{Ø}3/8$ " x 2 1/2" Fine Thread Gr. 8 Bolts, four  $\text{Ø}3/8$ " washers, and two  $\text{Ø}3/8$ " Fine Thread Nylon Lock Nuts. Use two 9/16" wrenches to tighten.

Step 22: Position and assemble the limited rotation draw pin assembly onto the hitch as shown below. Use a 15/16" wrench to tighten the nut.





Step 23: Install the Brake/Tail Light Wiring Connection. Splice the jumper harness to the appropriate wire (details below) on your snowmobile or ATV using the connectors provided. Secure the jumper harness to the harness on the snowmobile or ATV and test by turning on the unit and applying the brake.

<u>FUNCTION</u>	<u>RESCUE</u>
Ground	Brown
Running	Green
Brake	Yellow

**Congratulations;**

Assembly of your Snowcoach MPV suspension is now complete.

## Operating and Maintenance Instructions

- 1) Before using, always inspect your Snowcoach MPV for damage and check to see that safety features such as lights are operating properly.
- 2) Always insure that the safety chain is connected to the towing vehicle as close to the hitch as is practical.
- 3) The additional weight of the Snowcoach MPV will change the handling and braking characteristics of the towing vehicle. Adjust speed and maneuvers accordingly. Remember, the cutter Gross Vehicle Weight (GVW) under maximum load is approximately 1100 lbs. (See specifications for more details.)
- 4) Towing speeds should not exceed 20 mph (33 km/h) at any time and extra caution should be taken when negotiating moguls, riding in ditches, crossing culverts, driveways, roads, or passing between obstacles. Be aware of overhanging obstacles.
- 5) **NEVER** make high-speed turns, particularly on sloped surfaces or embankments.
- 6) Passengers should always wear approved helmets.
- 7) Passengers should not ride standing neither up nor on the outside of the Snowcoach MPV at any time.
- 8) The Snowcoach MPV is not heated, remember passengers should dress to prevent wind chill.
- 9) **DO NOT OVERLOAD** the Snowcoach MPV. Recommended maximum capacity is for four attendants at a maximum weight of 1000 lbs.
- 10) Never spin the snowmobile track while towing the Snowcoach MPV. The Snowcoach MPV could receive damage from flying debris, which could cause injury to the passengers inside.

## Clean and protect

Wipe down the Snowcoach MPV body with a damp cloth and a mild soap.